





COUNTY BOROUGH OF BURY.

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# REPORT

ON THE

## Medical Inspection of School Children For the Year ended 31st December, 1938.

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SCHOOL MEDICAL OFFICER, MEDICAL OFFICER OF HEALTH,  
AND  
CHIEF TUBERCULOSIS OFFICER.

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PUBLIC HEALTH DEPARTMENT,  
TITHEBARN STREET, BURY.

May, 1939.

To the Chairman and Members of the Education Committee,  
County Borough of Bury.

Ladies and Gentlemen,

I beg to submit for your consideration my Annual Report on the Medical Inspection of School Children during the year ended December 31st, 1938.

Despite the fact that a lot of extra work during last September was thrown upon the medical staff in connection with Air Raid Precaution Measures and that all normal activities were suspended for some weeks, it can be noted that in all branches of the School Medical Service an increased amount of work has been achieved. The increased pressure of work all round has somewhat delayed the publication of this report.

It will be observed in the Report that the figures in connection with Routine Medical Inspections have not increased, since they vary with the school population, and this has shown a decrease in correlation with the decrease of the birth rate.

The figures, however, in connection with the special medical examinations have increased in all directions, and the tendency in School Medical Service work is to extend the "special" services very considerably. An increased number of children have been sent to open-air schools, convalescent homes, etc., and this is the result of more attention being devoted to the special medical examinations.

There have been no changes in the personnel of the staff during the year.

I take this opportunity of expressing my thanks to Dr. Mackay, Dr. Racliffe, Mr. Kershaw, the Director of Education and his staff, the School Nurses, the Head Teachers of the various schools, Mr. Rainey, Inspector of the N.S.P.C.C., and the clerical staff of the School Medical and Health Departments, for the assistance they have given me, and to you, ladies and gentlemen, for your courtesy and consideration.

I am, Ladies and Gentlemen,

Your obedient Servant,

G. M. DAVIDSON LOBBAN.



# County Borough of Bury.

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## MEDICAL INSPECTION OF SCHOOL CHILDREN.

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### STAFF.

The School Medical Staff consists of:—

The School Medical Officer, who also acts as Medical Officer of Health and Chief Tuberculosis Officer.

One Assistant School Medical Officer, who also acts as Deputy Medical Officer of Health and Clinical Tuberculosis Officer.

One whole time Dentist.

Two School Nurses.

One Dental Nurse.

One female Clerk, who carries out the clerical work at the School Clinic. The remainder of the clerical work is performed by the clerical staff of the Health Department.

Co-ordination of the work of the School Medical Service with that of the other Health Services is assured owing to the fact that the School Medical Staff is also responsible for the control of the various activities of the Health Department.

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## ELEMENTARY SCHOOLS.

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### MEDICAL INSPECTION.

Four groups of children are inspected annually, viz. :—

1. "Entrants."
2. Second Age Group (aged 8 years).
3. Third Age Group (aged 12-14 years).
4. "Specials" (children brought to the notice of the School Medical Officer by the Teachers or Nurses as suffering from some palpable disease or defect).

All children in the above groups who have been referred either for treatment or observation are re-examined after a suitable interval has elapsed. Cases requiring special supervision are seen at the Clinic from time to time with a view to ascertaining whether the necessary medical attention is being received.

The Schedule of Medical Inspection issued by the Board of Education has been followed throughout.

The Teachers and School Nurses have been instructed to bring to the notice of the School Medical Officer any children who, in their opinion, are abnormal in any way. Periodically lists of children considered defective are obtained from Head Teachers. Such children are specially examined and early information as to crippling and other defects is thus obtained. These cases are examined not only on the occasion of the Medical Officer's visits to schools, but may be sent to the clinic on any morning. Valuable information is also received from the School Attendance Officers.

When carrying out Medical Inspection, every effort is made to avoid unnecessary disturbance of the school arrangements. In a few schools there are one or more rooms which are not used as classrooms, and these are always used for Medical Inspection. In the majority of the schools, however, it is necessary to make use of a classroom for the purpose.

#### **REVIEW OF THE FACTS DISCLOSED BY MEDICAL INSPECTION.**

##### **General Condition of Children.**

Whilst the general physical condition of the school population in Bury is good there still exists a certain amount of malnutrition. Malnutrition is not always easy to define, and it is due to many causes among them being a bad heritage, owing to the lack of ante-natal instruction and care of the mother, an insufficient amount or the wrong type of food being provided for the mother during pregnancy and nursing, also an insufficient amount or the wrong type of food being provided for the child during the infant period and later.

To-day the Public Services are providing the facilities for eliminating many of the causes of malnutrition, and it is desirable that advantage should be taken of these facilities.

The ante-natal clinics give instructions as to the correct feeding, etc., for the pregnant mother, the mother and child welfare clinics provide correct feeding for the infant and young child, and, where necessary, provide the wherewithal for such correct feeding. This is followed by a provision of free meals and milk where these are necessary for the child whilst at school.

One big factor controlled by the home which can mar or make the full value of the work of the services mentioned, and that is the hour at which children are put to bed. This is all important. Three great essentials in life are rest, fresh air, and good food. Better ventilated schools are being built, food is being provided, but only the parent can put the child to bed.

A rough guide as to a suitable hour is that Entrants (at 5 years) should be in bed by 7.0 p.m., the second age group (at 8 or 9 years) by 8.0 p.m., and the third age group (at 12 or 13 years) by 9.0 p.m. In each case the latest limit is quoted.

**Uncleanliness.**—The number of cases suffering from scabies has decreased from 83 in 1937 to 36 in 1938. Similarly the number of offensively dirty bodies and clothing has decreased from 8 in 1937 to 4 in 1938. There were in addition 362 children who were found to have a few nits only. Notices were sent to the parents calling their attention to the condition.

It is very gratifying to find a marked decrease in the number of cases suffering from scabies and in the number of frankly dirty bodies. Still more improvement can be achieved and a big duty rests on the parents in this respect. If parents are in doubt on this point, they should attend at the School Clinic, The Wylde, which is open 9.0 to 10.0 a.m. daily, where the children will be seen by the School Medical Officer and the parents will then be reassured or advised regarding treatment.

In addition to the Routine Medical Inspections periodical examinations for cleanliness are made by the School Nurses. They again devoted four weeks to a thorough inspection of all the schools immediately after the long vacation, when the children return often in a very neglected condition.

In cases where uncleanliness exists a circular is sent to the parent calling his attention to the fact and giving instructions for cleansing and other advice. If, on subsequent examination, the condition is found to persist a card more strongly worded is sent. If on a third examination the condition still persists the child is excluded. In bad cases the child is excluded at once. All excluded children are inspected at the clinic as to their fitness for return to school, and in every case a sufficient improvement has been effected without resort to prosecution, though the assistance of the attendance officers and of the Inspector for the Prevention of Cruelty to Children has frequently to be invoked. Unfortunately many children quickly relapse.

**Minor Ailments.**—The cases of Minor Ailments met with are included under their respective headings, viz.:—Skin Diseases, External Eye Diseases, etc.

**Tonsils and Adenoids.**—During the year 77 children were found to be suffering from enlarged tonsils requiring treatment, while 166 were suffering from enlargement without evidence of ill-effect, and were referred for observation. 32 children were referred for treatment for adenoids, and 12 for observation, while the figure for children suffering from both conditions together was 24 requiring treatment. In addition 19 children were referred for treatment for other defects of the nose and throat.

Comparative figures for the previous four years are:—

Enlarged Tonsils:	1934.	1935.	1936.	1937.
Children requiring treatment ... ... ...	207	233	209	128
Children referred for observation ... ...	111	113	130	111

**Adenoids:**

Children requiring treatment ... ... ...	10	7	8	40
Children referred for observation... ...	4	8	28	34

**Enlarged Tonsils and Adenoids:**

Children requiring treatment ... ... ...	38	27	33	41
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**Other defects of nose and throat:**

Children requiring treatment or observation ... ... ... ...	—	9	1	19
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Medical thought of to-day is much more conservative on the question of tonsils and adenoids. Generally speaking, adenoidal tissue causing nasal obstruction, mouth breathing, etc., should be

removed by operation. Mere enlargement of the tonsils does not demand removal, but parents must realise that any recommendation for removal of tonsils is made after much thought and repeated observation of the patient and in the light of modern medical thought.

**Tuberculosis.**—Five cases of definite Pulmonary Tuberculosis were discovered. Four cases were admitted to Sanatorium.

These cases are nearly all of the type known to the medical profession as "Hilar Tuberculosis." This means enlargement of the root glands of the lungs and there is no true involvement of the lung substance as in adult pulmonary tuberculosis. Under correct treatment the condition should clear up completely and the best treatment is change of environment in a residential institution where education is combined with open-air treatment.

**Bronchitis.**—89 cases of Bronchitis were discovered during the year and all were referred for treatment. Most of the children notified on Form 40a D suffer from Bronchitis. Many other cases found are not sufficiently severe to be notified, but they require Ultra Violet Light treatment—from which much benefit is derived.

The number of cases of Bronchitis discovered and referred for treatment in previous years was:—1934, 34; 1935, 39; 1936, 83; 1937, 44.

The past winter has been a very severe one for school children, especially of the younger age groups, and there has been a marked increase in the number of cases of Bronchitis. The object with these cases is to prevent the condition becoming chronic.

**Skin.**—A number of cases of Skin Disease were discovered during the Routine Inspections, and many more were sent as "specials" to the clinic for treatment. Among the cases of Skin Disease found were:—

	(a) Referred for Treatment	(b) Referred for Observation only
Ringworm, Scalp	—	—
Ringworm, Body	9	—
Scabies	36	—
Impetigo	88	—
Other Skin Diseases (Non-Tuberculous).	394	7

The figures for previous years are :—

	1934.	1935.	1936.	1937.
<b>Ringworm, Scalp:</b>				
(a) Referred for treatment ... ... ... ...	5	5	1	2
(b) Referred for observation only ... ...	—	—	—	—
<b>Ringworm, Body:</b>				
(a) Referred for treatment ... ... ... ...	11	9	10	3
(b) Referred for observation only ... ...	—	—	—	—
<b>Scabies:</b>				
(a) Referred for treatment ... ... ... ...	13	33	18	83
(b) Referred for observation only ... ...	—	—	—	—
<b>Impetigo:</b>				
(a) Referred for treatment ... ... ... ...	127	105	193	88
(b) Referred for observation only ... ...	—	—	—	—
<b>Other Skin Diseases (non-Tuberculous):</b>				
(a) Referred for treatment ... ... ... ...	143	170	251	394
(b) Referred for Observation only ... ...	7	15	15	7

**External Eye Disease.**—182 cases of external eye disease were found during the year, 168 of which were referred for treatment. The following table shows the nature of these cases :—

	(a) Referred for Treatment.	(b) Referred for Observation only
Blepharitis ... ... ... ...	47	—
Conjunctivitis ... ... ... ...	47	—
Corneal Opacities ... ... ...	—	—
Other ... ... ... ...	74	14

The figures for previous years are :—

	1934.	1935.	1936.	1937.
<b>Blepharitis:</b>				
(a) Referred for treatment ... ... ... ...	39	28	38	29
(b) referred for observation ... ... ...	—	—	—	—
<b>Conjunctivitis:</b>				
(a) Referred for treatment ... ... ... ...	13	16	13	19
(b) referred for observation ... ... ...	—	—	—	—
<b>Corneal Opacities:</b>				
(a) Referred for treatment ... ... ... ...	—	23	—	2
(b) referred for observation ... ... ...	—	—	—	—
<b>Other:</b>				
(a) Referred for treatment ... ... ... ...	29	25	47	26
(b) Referred for observation ... ... ...	—	—	—	4

Too much attention cannot be paid to external eye disease because the slightest evidence of this may really be a manifestation of defective vision undetected by the routine vision tests—the youthful vigour of the child's eye muscles being able to accommodate to a normal vision.

**Defective Vision and Squint.**—546 cases of defective vision and squint were found. Of these 498 were cases of defective vision and 48 cases of squint. 523 were referred for treatment and 23 for observation only.

Previous figures are:—

	1934.	1935.	1936.	1937.
Cases of defective vision and squint found ... ...	331	355	422	381
Cases of defective vision and squint referred for treatment ... ... ... ...	283	286	332	329
Cases of defective vision and squint referred for observation ... ... ... ...	48	69	90	52

The large increase in cases of defective vision is due to the fact that a higher standard of visual acuity was set and so many children are now having their defects corrected at an earlier age and at an earlier stage of the disease.

There are unfortunately still a number of parents who are unwilling to see the necessity of children wearing spectacles with the object of preserving good vision.

**Ear Diseases and Hearing.**—Fifteen children were found to be suffering from defective hearing, 54 from Otitis Média, and 6 from other ear diseases. Children who have been treated at the clinic are called up subsequently from time to time, in order that any recurrence may be detected.

**Dental Defects.**—Readers are still urgently requested to study very closely Table V at the end of this report, as it is a very serious indictment against Health Education both locally and nationally. The question of healthy teeth is closely bound up with the problem of nutrition and is too extensive to be discussed here.

Table V. will indicate to readers the unhealthy state of the teeth of school children, and this state of affairs is not by any means confined to the younger age groups and the "milk" teeth. In fact the state of the teeth in High School children is not good.

The staff and accommodation are insufficient to cope with the dental necessities of Bury, so much so that no arrangements are made to treat the teeth of High School pupils. This is unfortunate, because presumably the pupils of the High School are the pick of Bury's school population.

### **INFECTIOUS DISEASE.**

The School Medical Officer receives, as Medical Officer of Health, notification of all cases of notifiable Infectious Disease occurring in the Borough, and is thus enabled to take prompt action. Where necessary visits are paid to schools and contacts and suspects are examined. This procedure enables the Medical Staff to detect infective early or missed cases.

No school was closed during 1938 on account of Infectious Disease.

### **DIPHTHERIA IMMUNISATION. SCHOOL CHILDREN.**

The position at the end of 1938 with regard to the immunisation of school children was that 710 children of school age were immunised against diphtheria. Of the children immunised seven contracted diphtheria, and amongst the latter there was one death.

The statement issued from the Public Health Department in 1935 that nearly every child who receives immunisation is protected against the dangers of diphtheria has been substantiated.

The process of immunisation consists of three harmless, painless and simple injections into the arm of the child. There are no scarring or sores left, and the child carries on in the same way after the injections as before them. Work, sleep, and play are not interfered with.

In proof of this, parents, with very few exceptions, bring their children to the clinic to receive the second and third injections and also bring other children in the family to be immunised after one member of the family has been immunised. This would not be the case if the injections were in any way painful or there were any untoward reactions afterwards.

The greater the number of children immunised under ten years of age the better, since diphtheria is most prone to attack persons under that age.

Improved treatment as at present given in hospital will not stamp out the incidence of diphtheria, although it has been the means of saving many lives. Clearly the only method of reducing the incidence of diphtheria in any community is by extensive immunisation.

### " FOLLOWING UP."

Medical Inspection is obviously of very little use unless those children who are found to be suffering from some disease or defect are "followed up" in order to ensure that the necessary treatment is obtained. The procedure adopted in this Borough is as follows:

A note is at once sent to the parent informing him of any abnormal condition discovered, and urging him to obtain appropriate treatment. After an interval the house is visited by the nurse and enquiries made as to whether treatment has been obtained. If not, a further note is sent, and after another interval the house is again visited. These visits are repeated as often as necessary, but owing to the unsatisfactory replies often given by parents and the difficulty experienced by the Nurses, with the limited time at their disposal, in getting into touch with the latter (many of them being out at work at the time of the visit), they are, as far as possible, induced to attend the clinic. In this way many more parents are prevailed upon to obtain medical treatment for their children, and by calling up the latter from time to time the receipt of such treatment can be verified.

In certain special cases (defective vision, tonsils and adenoids, &c.) arrangements are made, where necessary, for the child to receive treatment under the scheme of the Local Authority. Such schemes at present in operation are detailed in a succeeding paragraph.

All children found to be defective on inspection are re-examined by the Medical Officer on his next visit to the school in order to ascertain whether treatment has been obtained, and, if so, the result of same.

Too often, at this re-examination, it is found that nothing has been done to remedy the defect already notified to the parent. In many cases this is not the result of neglect, but merely the result of procrastination.

The Minor Ailments Clinic, more popularly known as the "School Clinic," which is held from 9-0 to 10-0 a.m. daily, is of great value in the work of following up. Parents who have received notice of defect or disease in their children, and who have not been present at the inspection at school, have attended at the Clinic to obtain further particulars as to what treatment is required. It is thus possible to explain the condition much more fully than can be done by letter, with the result that treatment is often obtained in cases which would otherwise remain untreated. In this particular it is not only more satisfactory to the parent but to the School Medical Officer and the School Nursing Staff that the parent should attend, as it is highly undesirable that a message regarding a child's physical condition should be delivered to the parents by the child itself. If such a message is given to a child, there is the risk of the message reaching home incorrectly. To avoid this the parent is written to attend the Clinic when the situation is explained with more satisfaction to everyone concerned, and generally in this way the ultimate object is attained—an improvement in the child's physical condition.

During the year the School Nurses have carried out the following visits, etc. :—

Number of visits to school departments in connection with medical inspection ... ... ... ... ...	352
Number of visits to schools to examine children for cleanliness ... ... ... ... ...	391
Number of visits and re-visits to homes ... ... ...	187
,, examinations for cleanliness ... ... ...	14,579

#### MEDICAL TREATMENT.

**Minor Ailments.**—A Clinic for the treatment of Minor Ailments is held at The Wylde. The accommodation consists of waiting room, dressing room, consulting room, and nurses' room.

The Clinic is open six days a week during school terms. Children attend from 9 to 10 a.m., when they are seen by the Medical Officer. They are either treated or referred to their own doctor in the case of children having a regular medical attendant.

The School Nurse on duty deals with cases requiring special treatment and excluded children after 10 a.m., and is frequently so engaged until after 11 a.m. Specials and children requiring more than one daily treatment are seen by appointment later in the day.

An arrangement has been made by which children are provided with a small attendance card which they bring to and from school. On this card, which is available for a month, is noted the date of each attendance and the time of arrival and departure, and when the child is to re-attend.

The records of the Clinic are kept on a Card Index system. On each card are the particulars of the child, its defect, and whether attending as result of school inspection or sent by teacher, doctor, or parent. On the card are also recorded the treatment and condition on discharge, with the date of each attendance, the time of arrival and departure, and the period of any exclusion.

To reduce to a minimum the period of absence from school every school exclusion is recorded on a chart, so that it is under constant observation till the child is fit to return.

The Clinic Clerk is now in charge of the booking while the Clinic is open, and a monthly summary is made of all attendances in accordance with the above particulars.

The number of children attending the Minor Ailments Clinic during the year 1938 is shown in the following table :—

Number of children attending from 1937 ... ... ... ... ...	77
,,        ,,        discharged during 1938 ... ... ... ...	1,138
,,        ,,        still attending at end of 1938 ... ... ...	117
,,        fresh children who attended during 1938... ...	1,178
,,        attendances ... ... ... ... ... ... ...	5,269
Clinic open ... ... ... ... ... ... ... ... ... ... ... ...	days 288
Average attendance per child ... ... ... ... ... ... ...	4.2
Average daily attendance ... ... ... ... ... ... ...	18.3

In addition to the above, 456 children attended on three or four successive days for mydriatic application before seeing the School Oculist for purpose of refraction. This represents 1,800 attendances which are not included in the total attendances in the previous table.

Comparative figures for previous years are as follows:—

	1934.	1935.	1936.	1937.
Number of fresh children who attended Clinic	621	618	831	1,015
Number of attendances ... ... ... ...	6,644	6,376	6,680	5,374
Average attendance per child ... ... ...	9.21	8.89	7.48	5.1
Average daily attendance ... ... ...	23.39	22.45	22.5	18.3
Children attending for mydriatic application	331	355	422	381

Altogether 416 parents were seen at the Clinic during the course of the year. This was largely in connection with defects found in the course of Medical Inspection.

Much prolonged treatment is caused by children ceasing to attend the Clinic before being cured, and then relapsing and coming back in as bad a state as they were at the commencement of their treatment.

**Tonsils and Adenoids.**—Many of the cases requiring operative interference are treated by general practitioners. New arrangements came into force during 1930 with the Board of the Bury Infirmary under which certain cases are treated at that Institution. No charge is made by the Board to the Education Committee, and correspondingly no charge is made by the Education Committee to parents of children treated. The Local Authority makes an annual grant to the Infirmary in connection with this scheme.

The following table contains particulars of the cases treated during the last five years:—

	1934.	1935.	1936.	1937.	1938.
Total number of cases receiving some form of treatment ... ... ... ...	245	233	152	172	159
Number of cases receiving operative treatment under the Local Authority's Scheme ... ... ... ...	127	116	37	61	21
Number of cases receiving operative treatment by private practitioner or otherwise ... ... ... ...	88	76	87	85	74

**Tuberculosis.**—Cases of Pulmonary Tuberculosis occurring in the Borough are sent for treatment to the Institution of the Bury and District Joint Hospital Board, but the Board does not admit children under 14. School children are, however, sent to the Liverpool Open-Air Hospital for Children, Leasowe, and to the Halifax Sanatorium, Shelf.

An agreement is in force between the Bury Corporation and the Bury Infirmary, under which cases of Non-Pulmonary Tuberculosis occurring in the Borough are treated at that Institution. Such treatment is available for school children. Cases are also occasionally sent for treatment to the Shropshire Orthopædic Hospital at Oswestry, the Liverpool Open-Air Hospital for Children, Leasowe, and to the Jericho Hospital, Bury.

Arrangements have been made with the Manchester and Salford Hospital for Skin Diseases, whereby patients from the Borough suffering from Tuberculosis of the Skin could attend and receive appropriate treatment. These arrangements extend also to children of school age.

The following table shows the number of cases of definite Tuberculosis which have received Institutional treatment during the year:—

At the Bury Infirmary:

	No.	Total No. of Days.
Boys	2	38
Girls	1	3

At Liverpool Open-Air Hospital for Children, Leasowe:

Boys	1	365
Girls	0	0

At Shropshire Orthopædic Hospital, Oswestry:

Boys	3	569
Girls	0	0

At Halifax Sanatorium, Shelf, near Halifax:

Boys	0	0
Girls	3	675

At Jericho Hospital, Bury:

Boys	1	4
Girls	0	0

**Skin Disease.**—The majority of the cases of Skin Disease occurring among school children were treated at the Minor Ailments Clinic. Further particulars will be found in Table IV., Group I., at the end of this Report.

**External Eye Disease.**—All cases of External Eye Disease are now referred to the Ophthalmic Surgeon at the School Ophthalmic Clinic—previously these cases have been referred to the Bury Infirmary if the opinion of the Ophthalmic Surgeon was required. This permits of a much closer co-operation between the Ophthalmic Surgeon and the School Medical Officer. Particulars of cases treated will be found in Table IV., Group II.

**Vision.**—The majority of children suffering from defective vision are examined by Dr. James Ratcliffe, the Ophthalmic Surgeon to the Local Authority.

In April, 1936, there was an extension of the examination scheme. As previously the children have atropine instilled into the eyes prior to the first examination, but after this examination, instead of the spectacles being prescribed forthwith, which except in special cases was the previous practice, the child is examined again after the lapse of a fortnight when the effect of the atropine has worn off. The required lenses are then selected. A third examination is made after the spectacles have been obtained to check the fitting. The whole of the scheme is thus under the control of the Ophthalmic Surgeon. The method is working very satisfactorily.

The following table gives the figures for the past five years:—

	1934.	1935.	1936.	1937.	1938.
Number of children submitted to refraction ...	331	355	422	381	456
"    "    already provided with suitable spectacles ...	73	69	77	90	49
"    "    not requiring spectacles...	48	55	119	43	58
"    "    for whom spectacles were prescribed ...	210	231	226	248	349
"    "    who had obtained the necessary spectacles by the end of the year ...	199	218	179	242	254

In cases where the parent cannot afford to pay for glasses the Education Committee pay the cost wholly or in part. The number of cases in which such assistance was rendered during 1938 was 28. In each instance spectacles were provided free.

Some parents are still too dilatory at obtaining spectacles, and even when they do obtain them they do not insist on the child wearing them.

Further particulars as to treatment of Defects of Vision will be found in Table IV., Group II., page 43.

**Ear Disease and Hearing.**—No special treatment is provided apart from that which may be obtained at the School Clinic. As will be seen from Table IV., Group I., 70 cases of Minor Ear Defect have been treated at the Clinic.

Cases offering difficulty are referred for opinion and treatment if necessary to the Ear, Nose and Throat Specialist at Bury Infirmary.

**Dental Defects.**—See Table V.

**Crippling Defects of Orthopædics.**—An arrangement is in force under which Orthopædic cases from Bury are treated under the Scheme of the Lancashire County Council. The scheme falls into three parts:—

1. Orthopædic Centre.
2. Ancoats Hospital, Manchester.
3. Biddulph Orthopædic Hospital, Staffordshire.

**1. ORTHOPÆDIC CENTRE.**—An Orthopædic Clinic is held once weekly at the "Uplands," Whitefield. The Centre is attended each session by the County Orthopædic Nurse. Once a month it is attended by the County Assistant Orthopædic Surgeon, Mr. E. S. Brentnall, F.R.C.S. Mr. Brentnall sees all new cases and supervises all old cases.

The School Medical Officer attends at each monthly Clinic, thereby gaining first-hand information regarding each child's condition, enabling him to supervise intermediate treatment.

**2. ANCOATS HOSPITAL.**—Here cases are seen for further opinion or for further examination, including X-ray photographs, by Mr. E. S. Brentnall, F.R.C.S., Orthopædic Surgeon to the Hospital and to the Biddulph Hospital. Apart from examination and out-patient treatment, only short stay cases are admitted to the Wards of the Ancoats Hospital.

**3. BIDDULPH HOSPITAL.**—This Hospital belongs to the Lancashire County Council. It is situated 28 miles south of Manchester, near Congleton.

Particulars of cases dealt with at the Orthopaedic Centre during the year will be found in the following table:—

**NEW CASES:—**

First Consultation with Surgeon ... ... ... ...	18
Second or subsequent Consultations with Surgeon... ...	8

**OLD CASES:—**

Total Consultations with Surgeon ... ... ... ...	36
Total Consultations with Surgeon—all cases ... ...	62

**NEW CASES.—Analysis of Defects:—**

Infantile Paralysis ... ... ... ...	2	Rheumatism... ... ... ...	1
Cerebral Diplegia ... ... ... ...	1	Hallux Valgus ... ... ...	1
Claw Feet ... ... ... ...	1	Overlapping Toes ... ... ...	1
Valgus feet ... ... ... ...	4	Rickets—Renal... ... ...	1
Pronated feet ... ... ... ...	2	Genu Varum ...	1
Cavus deformity ... ... ... ...	1		
Torticollis ... ... ... ...	1		
Scalded thigh with con- traction ... ... ... ...	1	Total ... ... ... ...	18

Three school cases were admitted to Biddulph Hospital during 1938.

**ARTIFICIAL SUNLIGHT TREATMENT.**

The treatment of Minor Ailments among the school children was extended in scope and increased in efficiency by the purchase of a Mercury Vapour Ultra-Violet Light lamp, and this method of Therapy was commenced in May, 1935, and continued during the year under review. The wide variety of uses and application of this method of treatment in Minor Ailments is seen on perusal of the accompanying table. In all cases where the treatment has been instituted a marked improvement in the condition and amelioration of the symptoms has resulted. This is particularly the case with conditions as sub-nutrition, anaemia, or the "weedy" child with multiple septic sores.

The use of the Mercury Vapour Lamp has been proved to be of great benefit in the arrest and cure of tubercular gland or skin conditions. It has enabled tubercular school children to receive treatment at the Clinic with marked benefit to this type of patient. The table shows the relative figures in this latter group.

### Artificial Sunlight Clinic Cases and Attendances:

#### (a) Analysis of Cases.

##### (i) Elementary Schools.

##### **Non-tubercular:**

Anæmia	11
Malnutrition	8
Bronchitis	40
Adenitis (not T.B.)	22
Skin	1
General Debility	101
Ringworm (body)	1
Chorea	4
Alopecia	4
Asthma	2
Rickets	4
Rheumatism	1
Total	199

<b>Tuberculous, glands</b>	5
,, abdomen	3

Total ... ... ... ... 8 Total under both heads, 207.

##### (ii) Secondary Schools.

Asthma	1
Swollen Glands	2
Anæmia	2
Under-weight	1

## (b) Attendances.

## (i) Elementary School Children.

Non-tubercular cases—199 children made 3745 attendances  
 Tubercular cases — 8 children made 325 attendances

## (ii) Secondary School Children.

Non-tubercular cases... 6 children made 74 attendances

Total attendances ... ...	4144
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Average attendance per child=19.45.

The total attendances and average attendance per child for previous years are given below:—

	1935.	1936.	1937.
Total attendances ... ... ... ...	734	1,860	2,418
Average attendance per child ... ...	11.4	16.46	13.9

**CO-OPERATION OF PARENTS.**

Notice is sent to the parent of every child of the date and time of inspection, and the parent is invited to attend. The percentage of parents attending was:—

“ Entrants ” ... ... ... ...	77.32%
“ Second Age Group ” ... ... ...	57.7 %
“ Third Age Group ” ... ... ...	19.2 %

The figures for all age groups show a marked increase in the attendance of parents, and this is in keeping with an increased willingness to co-operate. There is still room for improvement, especially in the “ Entrants ” age group, because it is at this age that any defect can be corrected. In families where both parents are working a responsible relative should accompany the child to school medical inspection.

The school medical staff are examining children who in the parents' opinion are well enough to be at school and in no way is the School Medical Service a substitute for the family practitioner.

### CO-OPERATION OF TEACHERS.

Many of the teachers render invaluable assistance in connection with the medical inspection and treatment of the children. In many cases the teacher is present at the inspections, and any defects found are pointed out. The teacher is thus enabled to explain to the parents in a subsequent interview the importance of obtaining treatment, and so to assist the Medical Officer very substantially.

The School Medical Service offers its thanks to the teachers for their splendid co-operation and hopes that such co-operation will be maintained and increased.

### CO-OPERATION WITH THE MEDICAL PRACTITIONERS AND MEDICAL INSTITUTIONS OF BURY AND DISTRICT.

Grateful thanks are due to the Medical Practitioners of Bury and district and to the Staffs of the local institutions for their pleasant and ungrudging co-operation.

### CO-OPERATION OF SCHOOL ATTENDANCE OFFICERS.

The School Attendance Officers assist the School Medical Officer in many ways, and interviews are constantly taking place between them and the School Medical Staff. Their services are specially valuable in connection with the Minor Ailments Clinic, as they are able to secure the attendance of the children in a way that would be otherwise impossible.

Mention should here be made of the co-operation of the Inspector for the National Society for the Prevention of Cruelty to Children. The Inspector pays regular visits to the School Medical Department and discusses with the staff cases which it is thought advisable to keep under observation. His work is most valuable and helpful.

### OPEN-AIR EDUCATION.

There are no open-air day or residential schools in the Borough. In summer many of the classes are held in the playgrounds, and visits are made to the various recreation grounds.

## PHYSICAL TRAINING.

The Organiser of Physical Training reports as follows:—

During the year ended 31st December, 1938, the arrangements for the organisation of Physical Training have been similar to those for the previous year.

The Education Committee have continued to pay grants towards the maintenance of school playing fields and to supply games materials.

The teaching of Physical Education in all schools under the Authority is based upon the Board of Education Syllabus for Physical Training, 1933. The continued application of the principles embodied in this Syllabus is producing in both boys and girls a higher standard of physical efficiency and a definite improvement in deportment and posture. Two new gymnasiums are in the course of construction, and it is confidently anticipated that on completion many more children will be able to participate in a more comprehensive scheme of training than has formerly been possible.

## SCHOOL BATHS.

No baths are provided at any of the schools, but a new swimming bath is being incorporated as part of the facilities available for Physical Education at the new Technical College.

Classes of children attended the Corporation Baths during school hours for instruction in swimming from 2nd of May to the 14th of October, 1938. The total number of attendances made by children during this period was 23,809. This lower number of total attendances for the season is accounted for by the fact that owing to the September crisis the swimming season terminated a fortnight earlier than was intended, as the baths were taken over by the local A.R.P. authorities for use as a cleansing station if required.

The number of awards given at the end of the session were:

First Class Certificates ... ... ... ...	169
Second Class Certificates ... ... ... ...	415
Third Class Certificates ... ... ... ...	584

The Inter-School Swimming Gala was held at the end of the season, the high standard of performance of previous years being well maintained. It is confidently hoped that as a result of the teaching method, every child who is medically fit, and who attends the classes regularly, will learn to swim well before the end of his or her school career.

### **PROVISION OF MEALS.**

During the year it was found necessary to provide to school children 50,347 meals, comprising 24,377 dinners and 25,970 one-third pint bottles of milk. The dinners were provided by and served at four restaurants situate in various parts of the town. The School Medical Officer has visited each restaurant and all were found to be satisfactory. The average cost per dinner was 5.8d., and the cost per bottle of milk was .46d.

The cases are selected by the application of a scale, approved by the Board of Education, taking into consideration income and number in family. This arrangement, however, does not debar other children from having Free Dinners and/or Free Milk, inasmuch as all cases of suspected malnutrition are referred to the School Medical Officer for examination and report, and if Free Dinners and/or Free Milk are recommended, such provision is made.

Last year 80 children were examined in connection with the scheme for the provision of meals.

### **BLIND, DEAF, DEFECTIVE, AND EPILEPTIC CHILDREN.**

No schools for the treatment of these children have so far been provided by the Local Education Authority, but Blind and Deaf children are sent to outside institutions.

During 1938 the following children were maintained in special schools or hospitals :—

Blind ... ... ... ... ...	3	Orthopaedic cases ... ...	3
Deaf... ... ... ... ...	4	Tuberculous... ... ...	14
Physically defective... ...	27		

### **NURSERY SCHOOLS.**

No nursery schools have been provided in the area.

### INSTITUTIONS.

Children in hospitals or other institutions are visited periodically by the School Medical Officer, who discusses with doctors in charge the progress made by the patients.

### NUTRITION.

As requested in the Board of Education Circular No. 124 of the 31st December, 1934, the Nutrition of School Children was recorded in accordance with the new grades or classifications recommended. This information was necessary for the new Statistical Table adopted by the Board. The Nutritional Survey was carried out on strict clinical grounds, and not on an age, weight, height ratio or other mechanical formula.

From the results as set out in Table II.B, page 39, it will be seen that the school population contains a small proportion of children of definitely poor or bad nutrition, and when this figure is taken in conjunction with the sub-normal figures the resulting combined percentage is still gratifyingly low. The results as a whole are quite satisfactory, and there is no serious malnutrition among the school population.

### EMPLOYMENT OF SCHOOL CHILDREN.

During the year 87 children have been examined as to their fitness to undertake employment (usually the delivery of newspapers) out of school hours.

In many cases, these children have been employed for several weeks before the necessary certificate has been obtained. It is necessary, therefore, to stress the point that all individuals, employing school children, must ask the children to produce the necessary certificate, otherwise if the practice mentioned above is persisted in, stronger action will have to be taken.

## SECONDARY SCHOOLS.

In a Circular dated January, 1934, the Board of Education ask for a statement of the work of the School Medical Service in connection with pupils attending Secondary Schools and other Institutions of Higher Education, showing the provision made for medical inspection and treatment.

The information asked for is given under the following heads:

### 1. MEDICAL INSPECTION.

"(a) Numbers of schools concerned, showing separately schools provided by the Authority, those not provided but aided, and those which are neither provided nor aided."

The schools concerned in Bury are—

The Bury High School.

The Junior Technical School.

Both are provided by the Local Authority.

"(b) Frequency and character of medical inspection, i.e., whether full inspection or otherwise."

All children are submitted to a full inspection annually.

"(c) Whether all pupils attending the schools are inspected."

All pupils attending the schools are inspected.

### 2. FOLLOWING-UP AND MEDICAL TREATMENT.

"(a) The arrangements for following-up the defects discovered."

Exactly as in the case of Elementary Schools.

"(b) Forms of treatment provided under arrangements made by the Authority."

Exactly as in the case of Elementary Schools.

"(c) Types of pupil for whom treatment is available (e.g., all, or necessitous cases only)."

Available for all.

The children attending the Secondary Schools were first inspected in 1920.

During the year 1938 the total number of children inspected was 581. Particulars as to age and sex will be found in the following table:—

Age	10	11	12	13	14	15	16	17.	18	Total
Boys ..	3	49	50	83	87	58	20	6	—	356
Girls ..	3	46	36	36	48	32	18	6	—	225
Totals..	6	95	86	119	135	90	38	12	—	581

Total number of visits of School Medical Staff for the purposes of Medical Inspection:—

Doctor ... ... ... ... ...	24
School Nurse ... ... ... ...	36

Interference with the school routine was, as far as possible, avoided. The Head Masters of the two schools very kindly placed their rooms at my disposal, and I desire to express my thanks to them and to the other members of the staff for their interest in the work of Medical Inspection and for their valuable assistance.

### FINDINGS OF MEDICAL INSPECTION.

**Nutrition.**—The following Table shows the classification of the nutrition of the pupils examined at the Secondary Schools during the year under review:—

	No. of Pupils Examined	Excellent		Normal		Slightly Sub Normal.		Poor.	
		No.	%	No.	%	No.	%	No.	%
Boys .....	356	59	16·57	243	68·25	49	13·76	5	1·4
Girls .....	225	56	24·99	139	61·77	29	12·9	1	0·44
Totals...	581	115	19·79	382	65·74	78	13·42	6	1·03

Minor Ailments are referred to under their respective headings.

**Tonsils and Adenoids.**—2 children were found to be suffering from enlarged tonsils. These were referred for observation.

**Tuberculosis.**—No cases of Tuberculosis were discovered.

**Skin Diseases.**—One case of Impetigo, one of Urticaria, and one of Acne were found to require treatment.

**External Eye Diseases.**—Two cases of Blepharitis were found.

**Defective Vision.**—46 new cases of seriously impaired vision were found and were referred for treatment.

At the Secondary Schools the defective vision is most evident in the Matriculation Class age, and it is advisable that no reading external to academic studies should be done and as little as possible of any kind in artificial light.

**Ear Disease and Defective Hearing.**—Two cases of Otorrhœa were referred for treatment, and two cases of Defective Hearing were referred for observation.

**Crippling Defects.**—20 cases of flat-foot, and six cases of defective posture were referred for remedial exercises at school, but a case of Torticollis required treatment at the Orthopædic Clinic. One case of an injured ankle was referred to his own medical attendant.

**Heart and Circulation.**—Two fresh cases of Organic Heart Disease were discovered during the year, together with three cases of functional disease and one of Anæmia. All were referred for observation.

**Lungs.**—One case of Bronchitis was referred for observation.

**Minor Ailments.**—13 children from the Secondary Schools attended the Minor Ailments Clinic during the year. One was suffering from Impetigo, one from eczema, four from skin lesions, two from styes, one from septic spots, one from a heart defect, and three special cases attended for examination. One case which attended the Clinic was referred to the Whitefield Orthopædic Clinic.

**External Eye Disease and Defective Vision.**—46 new cases of Defective Vision were referred for treatment. 42 of these were seen by the Ophthalmic Surgeon and spectacles were prescribed in 36 cases. All of these children had obtained spectacles at the time of re-examination. In addition to the above, 32 children who were wearing glasses which were considered unsatisfactory underwent refraction and the necessary action was taken. The remaining cases of external eye disease received appropriate treatment and, on re-inspection, were found to be cured.

**Ear Disease and Hearing.**—The two cases of Otorrhœa received treatment by a private practitioner.

**Dental Defect.**—68 cases of Dental Defect were referred for treatment, and of these 27 consulted a dentist and received appropriate treatment. In addition to the above, 16 children attended the Dental Clinic for treatment.

**Nose and Throat.**—The two cases of Enlarged Tonsils referred for observation showed improvement.

**Heart and Circulation.**—On re-inspection all the cases of Heart Disease, with two exceptions, were found to be improved.

**Crippling Defects.**—All the cases showed signs of improvement.

#### **ARTIFICIAL SUNLIGHT TREATMENT.**

Artificial sunlight treatment was given to six Secondary School children. Particulars of this will be found on page 21.

#### **REMEDIAL EXERCISES.**

Special classes for Remedial Exercises were arranged for the year 1938.

#### **PHYSICAL TRAINING.**

Full use continues to be made of the Bury High School Playing Field, the last period of each afternoon being devoted to organised games for both boys and girls. The scheme of Physical Education at the school is a comprehensive one, and it is hoped to augment this still further when the new Technical College is completed and the Bath available for use.

## THE EFFECT OF HOLIDAYS ON SCHOOL CHILDREN.

Observant and thinking School Medical Officers and teachers must have often asked themselves the question—"Does the summer holiday do school children any lasting good?" Sociologists and others interested in the welfare of school children must have often asked themselves another question—"What proportion of school children is fortunate enough to go away from home during the summer holidays?"

I can partly answer the first question at once by stating that the majority of school children, at least in industrial areas, receive little or no benefit from the school holidays, and I can also answer the second question with equal celerity with the reply that in industrial towns the majority remain at home.

However, since I am going to show in this article that there is a difference to the health of a child resulting from the manner in which he or she spent the summer holiday, and I hope I may be able to convince those who may read this article that there is a real need for holiday camps for school children, I will proceed without uttering such commonplace platitudes as "upon the health and fitness of the school child of to-day depends the health and fitness of the adults of to-morrow," and so on.

How then can one judge if school holidays effect any real good upon school children?

A subjective criticism based upon how children look, their bearing, how they stand, their apparent robustness or plumpness, their liveliness or alertness, their healthy colour or lustre, is valueless, almost, if compared with an objective criticism based upon scientific and proven methods, and without more ado I will now discuss the latter.

After a satisfactory holiday, children usually put on weight, increase in height, the chest measurement is improved and the vital force is increased.

It is now my intention to describe how these effects are produced and their significances.

### Weight Increase or Decrease.

To arrive at reliable conclusions the children should be weighed immediately before the holiday, immediately after, and then six months later to see whether the effect has been retained. At the same time a record of height should be taken and a note made as to the increase or decrease of fat. During a holiday there is often an exaggeration of the physiological increase of weight. In my fourteen years' experience in the medical examination of some thousands of school children I have found that there is a mediocre increase of weight during the winter, a small increase during the spring, often a remarkable loss during a warm spell due to the loss of body fluid by the heat, and the greatest increase from August up to the end of autumn. It has to be noted also that at the time of puberty weight is more rapidly put on, and this is especially so in the case of girls. I have noticed also that the better developed a child is the more likely is he or she to increase weight more rapidly than children of inferior physique.

Bearing in mind these details and after repeated observations I have come to the following conclusions:—

- (1) That the increase or decrease of body weight depends upon the reactions to the various stimuli to which the child has been subjected such as the sun rays, air movement, bathing and to change of environment and habits, and increased repose and exercise.

(2) To go further, that the increase or decrease of weight is more or less directly related to the summation of these stimuli—the change of environment, inversion of work and repose, change of habits, change of climate, especially if the child escapes by holiday to the pure air of the country or seaside from the stale and polluted air of the town, and relief from family tension. Also of importance are a greater indulgence in exercise and a change from the accustomed home cooking. Naturally a diet rich in calories tends to increase weight.

### Height Increase.

This is not so important to take into consideration as the weight increase or decrease, but it is of value in comparing it with the latter. It is interesting to note that after a holiday period it is often found that the increase in height is two or even three times greater than that during a preceding school period, or during a period of similar length after the holidays. It appears that at school there is a restraint of growth and this is removed during the holiday period. This is one of the disadvantages of attending school, although I would not like this as an excuse by children or parents. Too vigorous or too much exercise during the holiday period can arrest or moderate growth. Here fatigue plays a part.

### Chest Increase.

To complete the anthropometrical examination one can add chest measurement. The measurements have a direct relationship to exercise in the open air, and they are that of the thoracic circumference, that of the normal expansion, and that of the full expansion.

### Spirometry and Dynamometry.

To complete the inquiry it will be necessary to add examinations by the spirometer and the dynamometer. However high a regard we might have for the traditional anthropometrical examinations, the functional tests are of more significance and are, therefore, more important since they reveal more clearly whether benefit has been obtained or not from the holiday.

The spirometer gives a measurement of the vital capacity of the lungs. It has been used in this country and abroad in connection with the training of athletes to ascertain their condition, and it indicates distinctly the amount of physical force.

The dynamometer, besides taking into account the absolute physical force, also takes into account the nerve state. It also gives a good indication of the vital capacity. One obtains a poor result from a person who is run down in health and a good one from one who is in perfect condition. It indicates the general strength.

Some remarks may be made here on the technique of the two methods. The same spirometer must be used for the same children. As with the dynamometer, it is important to examine always at the same hour of the day owing to the varying physiological oscillations which occur throughout the daytime. I have found that children of eight years and above realise the maximum force to be expended, and children under eight years have to be carefully instructed.

All the children enter into the spirit of the thing; one competing against the other. A frequent question from them being "How much have I scored?" I have never had any lack of volunteers for the functional tests.

One must use a smaller dynamometer for children under eight years since, they cannot grasp the larger dynamometer used for the eight-year-olds and above.

One single expiration on the spirometer and one single grip with the right hand and then with the left on the dynamometer are sufficient. There must be no taking advantage, such as by getting extra purchase for the grip by resting the hand on the thigh. Fatigue must be avoided since one does not get a good result by immediate repetitions. The first blow or grip is usually the best.

### Results.

On checking over the results of the hundreds of the anthropometrical and functional examinations which I have made of children who—

- (1) spent their holidays at home,
- (2) spent their holidays in the country
  - (a) with relatives, parents, or friends,
  - (b) in camps in the country,
- (3) spent their holidays at the seaside
  - (a) with parents, relatives, or friends,
  - (b) in camps at the seaside.

I have come to certain conclusions, but before presenting them here I should like to point out that the children chosen for observation and examination were as nearly as possible selected from the same social order with much similar home conditions for group (1) children who spent their holidays at home, for group (2) (b) children who spent their holidays in camps in the country and for group (3) (b) children who spent their holidays in seaside camps. The remaining two groups of those children, who spent their holidays in the country or at the seaside with parents, relatives or friends, belonged to a more prosperous order, and in these remaining two groups home conditions were much similar.

I have taken no account of the frankly weak or sick, since these are sent to be placed under medical supervision at various institutions, and for them it is a question of cure, and the results obtained will depend on the organic disease or the system affected, and the treatment administered.

I have dealt with children who have appeared basically healthy, and who required a holiday more as a prophylactic. However, it is just as well to bear in mind that amongst the children who appeared basically healthy there were some who were underdeveloped, some thin and pale, others nervous and jaded, some exhausted. In fact a stratum of the subwell was included. All, the well and subwell, had attended school with great regularity, and to a casual and non-medical observer would have all passed muster as having nothing much the matter with them. Such was the composition of the battalion of children inspected.

#### I. Results Obtained from the Children who Stayed at Home.

Slightly over half of the school children in the county borough where I am School Medical Officer had to spend their summer holidays at home through force of circumstances, and I may say over eighty per cent. of the children at some of the schools had to spend their holiday in this fashion. The home group, then, passed their holiday time in their own way, playing in the streets or in their own homes, loitering about, some happy, others disconsolately at times, nearly all without plan, although some made occasional forays into the surrounding country. Life was sometimes brightened up by odd visits to "the pictures." Some were definitely happy at not being at school.

The effects produced were by means of a more prolonged stay in the open air, more rest and a temporary break from mental work.

There was a gain in weight, and there was certainly a gain in height, often twice that compared to an increase during a similar preceding period during school term. The thoracic circumference was increased a little. On the whole a somatic success of a kind.

When one came to examine the results of the functional examinations, however, they were anything but favourable. A slight increase was recorded by the dynamometer, due to the fact that more rest was obtained on holiday than during the school period. On examination of the results obtained by the spirometer no real progress was found. As a matter of fact, more progress was made whilst the children were at school. There was then no real increase of the physical force, and this is a disadvantage when one comes to compare the total results gained by the children who had perforce to remain at home during the holidays, with the results obtained by the children who were more fortunate and spent their holidays in the country or at the seaside. Moreover I have found the stay-at-homes to be a more easy prey to infectious illnesses.

## 2. (a) Results obtained in Children who spent their Holidays in the Country with their parents, relatives or friends.

Dealing with the children who have spent their holidays in the country either with their parents or sent to friends or relatives I have found that the weight was increased a little, but most of it was composed of fat. The height and the thoracic circumference and expansion were increased slightly. In some cases there has been found a decrease of weight due to more exercise having been indulged in, due to the stimulation afforded by the changed climate and environment.

Physical force was not much increased above that found after a period of the same time spent at school. The spirometer value was very little altered.

The explanation is that there was usually an absence of water bathing and air bathing, and no regular or systematic exercises or games were indulged in. The children were a little more resistant to infectious illnesses than were those who remained at home.

## 2. (b) Results obtained in Children who spent their Holidays in School Camps in the Country.

With the children who went to school camps in the country there were certainly increases of weight and height above those observed for a similar preceding period at school.

The thoracic circumference and expansion were greater also, no doubt due to a greater indulgence in sport and exercises, than was found in the former group.

The functional results were satisfactory up to a point, but not so good as the results obtained in the children who had passed their holidays at a seaside camp. This group was more resistant to infectious illnesses than the previous group.

## 3. (a) Results obtained in Children who spent their Holidays at the Seaside with their Parents, Relatives or Friends.

Concerning children who passed the holiday period at the seaside with their parents, relatives or friends, the results were as follows:—

Weight was put on by the majority of the children, and a gain in height was observed both greater than those observed during a period at school of a similar length. The thoracic expansion was augmented slightly. As to the functional tests, these were good and more lasting than those obtained in the corresponding group who had sojourned in the country. Possibly the explanation of the latter results is that there

was the opportunity for sea bathing denied to the holiday-makers in the country, and air baths were more frequently taken, also the more stimulating air of the seaside occasioned more exercise. The effects, however, produced by the increases of weight and height were lost after a few months. I did not find this group of children any more resistant to infectious illnesses than the children of the corresponding country-staying group.

### 3. (b) Results obtained in Children who spent their Holidays in Camp at the Seaside.

When dealing with the school children who stayed at seaside holiday camps I found remarkable differences from the other groups.

The increase of weight was not so much as in the other groups, but the gain was more lasting. The increase of height was more and the increase of the thoracic circumference and expansions were considerable. These results were obtained through more activity having been generated through the stimulation of the skin by sea air, by the sun's rays and by sea bathing. I may add here that these stimuli, which I have just mentioned, acting through that great organ, the skin, not only have great preventative, but also great healing influences. The changed climate, changed living conditions, the continuity of the holiday in the open air, taking part in organised games and having appropriate rest periods during the day, all had their beneficial effect. The results were excellent.

The functional results, however, surpassed the somatic. The spirometer and the dynamometer values were pushed up well beyond those of the other groups considered, so that the vital force was increased, and this was more durable than the comparatively small gains observed in children of the other groups. Furthermore, there was an increased resistance to infectious illnesses. A very small percentage of the children did not react so favourably, however, since the stimulations were too much for them. They recovered by resting and taking things quietly at home on their return.

Some final remarks may not be amiss. It is clear that an objective method of examination must be used to assess the true value of a holiday. It must be as exact as possible, and this applies especially in examining children who are basically healthy to begin with.

The children who returned from the seaside camps were full of energy and vigour and their bodies were hardened to resist disease. The vital force was greatly increased. To return to subjective findings to satisfy those who attach more importance to them than I do. The children on return were alert in mind, lively and gay in manner. They held themselves well, were robust and were of a healthy colour.

Really what one tries to accomplish by holidaying is the recreation of the body and mind.

The old principle of fattening up the body, I think, is now obsolete.

It is necessary to supplement anthropometrical measurements by functional examinations, since only then can one judge as to the true value of different methods of holidaying.

There is then something more in seaside holidays for school children than the acquisition of sunburn and a voracious appetite.

True, a few of the holiday camps for school children at the seaside which I visited were patently understaffed and they were struggling against odds. Accommodation in other camps was of poor, even shabby, construction. Some camps, I know, are well staffed and possess buildings of good construction.

For those who were in charge of the camps and the staffs employed in looking after the children at the camps, I have nothing but praise, since I was firmly convinced that these men and women were deeply interested in their work, and I saw many examples of self-sacrifice on their part in the interests of the children under their care.

If camps for school children were erected generally throughout the country (there are precious few of them at the present moment) and school children taken by each school moving out to the camps by rotation for one month in the year, this would halve the school children's illnesses and the debilitations resulting therefrom, which debilitations it is computed cost the nation £20,000,000 a year.

During peace time each camp could be allotted to, say, eight existing elementary schools.

It appears to be necessary to begin to build new camps of splinter, gas, and blast proof non-inflammable huts with open-air classrooms, sleeping and living accommodation for 500 children and attendant staff. A good water supply and drainage would be essential and foundations laid for extending to ten times the size. Sections for extra huts and materials could be stored.

Through practice in peace time each child would become accustomed to his or her own camp. Bomb proof shelters would be absolutely essential in addition to the huts, since the possibility of these camps attracting enemy airmen in wartime and the attendant risk of direct hits, would render the huts nothing but death traps.

I am not prepared in this article to discuss a plan of evacuation to the camps during wartime, but I should like to see something which is in many minds, a plan, the nature of which would be a well organised and unhurried evacuation. As everyone knows, the evacuation of school children during the last crisis was ludicrous in the extreme, and the resultant consequences would have been tragic if war had occurred. The billeting scheme is a farce. The millions of people from the large towns who would, undoubtedly, on the declaration of war, or after the first bombing raid, have followed the children into the country would have very soon found little food or shelter to support them. Medical officers of health could not possibly have coped with the overcrowding, lack of sanitation, and the inevitable outbreaks of infectious disease.

Perhaps we are still dancing on the top of the volcano, but I hope that, having spoken on my part, others will make the resolve of the old Hebrew seer, "For Zion's sake I will not hold my tongue." Those who have spoken and perhaps ended with silence must learn not to be silent, since this is a matter which vitally affects every medical officer of health.

Personally, I will believe in the disappearance of war from this earth when I see the disappearance of the army, the navy, the air force, international financiers, and the police force, and when everyone becomes so well behaved that all litigation will be stopped, with envy and greed unknown, and megalomaniacs promptly incarcerated or liquidated.

I also believe that if you think you have bought peace from a dictator, you will find that you have only rented it—on short term leases, at an ever-increasing price.

Having had first-hand experience and knowledge of war, I am a man of peace, and detest war in all its insanity. Terrible though war is, it is sporadic, and we must be prepared to avert it. Ill-health is always with us, and the primary use for school camps would be to wage the incessant warfare against disease.

I am convinced that if school camps were established generally throughout this country ill health amongst school children would be half what it is now.

## ELEMENTARY SCHOOLS.

TABLE I.

### Return of Medical Inspections.

#### A.—ROUTINE MEDICAL INSPECTIONS.

Number of Inspections in the prescribed Groups:—

Entrants	732
Second Age Group	693
Third Age Group	519
Total	1944

Number of other Routine Inspections ... ... ... ... —

#### B.—OTHER INSPECTIONS.

Number of Special Inspections	1633
Number of Re-inspections	4942
Total	6575

#### C.—CHILDREN FOUND TO REQUIRE TREATMENT.

Number of individual children found at routine inspection to require treatment (excluding Uncleanliness, Defects of Nutrition, and Dental Diseases).

Group.	For defective vision(excluding squint).	For all other conditions recorded in Table II A.	Total
Entrants .....	26	192	218
Second Age Group .....	213	201	414
Third Age Group .....	169	82	251
Total (Prescribed Groups)...	408	475	883
Other Routine Inspections	..	..	..
Grand Total .....	408	475	883

TABLE II.

**A.—Return of Defects found by Medical Inspection in the Year ended 31st December, 1938.**

DEFECT OR DISEASE.	ROUTINE INSPECTIONS.		SPECIAL INSPECTIONS	
	Number of Defects.		Number of Defects.	
	Requiring treatment.	Requiring to be kept under observation, but not requiring treatment.	Requiring treatment.	Requiring to be kept under observation but not requiring treatment.
(1)	(2)	(3)	(4)	(5)
<b>SKIN:</b>				
(1) Ringworm: Scalp ... ... ..	..	..	..	..
(2) Ringworm: Body ... ... ..	..	..	9	..
(3) Scabies ... ... .. ..	7	..	29	..
(4) Impetigo ... .. .. ..	12	..	76	..
(5) Other Diseases (Non-Tuberculous) ... .. .. ..	10	4	384	3
Total (Heads 1 to 5) ...	29	4	498	3
<b>EYE:</b>				
(6) Blepharitis ... .. .. ..	19	..	28	..
(7) Conjunctivitis ... .. .. ..	37	..	10	..
(8) Keratitis ... .. .. ..	..	..	..	..
(9) Corneal Opacities ... .. .. ..	..	..	..	..
(10) Other conditions (excluding Defective Vision & Squint) ... .. .. ..	36	9	38	5
Total (Heads 6 to 10) ...	92	9	76	5
(11) Defective Vision (excluding Squint) ... .. .. ..	408	19	71	..
(12) Squint ... .. .. ..	39	..	5	4
<b>EAR:</b>				
(13) Defective Hearing ... .. .. ..	5	3	5	2
(14) Otitis Media ... .. .. ..	19	..	35	..
(15) Other Ear Diseases ... .. .. ..	6	..	..	..
<b>NOSE AND THROAT:</b>				
(16) Chronic Tonsillitis only ...	36	166	41	..
(17) Adenoids only ... .. .. ..	20	12	12	..
(18) Chronic Tonsillitis and Adenoids ... .. .. ..	24	..	27	..
(19) Other Conditions ... .. .. ..	19	..	..	..
(20) Enlarged Cervical Glands (Non-Tuberculous) ... .. .. ..	28	15	44	..
(21) Defective Speech ... .. .. ..	..	3	..	2
<b>HEART AND CIRCULATION:</b>				
(22) Heart Disease: Organic ...	4	..	..	..
(23) " " Functional ...	..	18	11	..
(24) Anæmia ... .. .. ..	9	2	91	..
<b>LUNGS:</b>				
(25) Bronchitis ... .. .. ..	41	..	48	..
(26) Other Non-Tuberculous Diseases ... .. .. ..	22	..	18	..
<b>RUTERCULOSIS:</b>				
Pulmonary:—				
(27) Definite ... .. .. ..	5	..	..	..
(28) Suspected ... .. .. ..	..	..	..	..
Non-Pulmonary:—				
(29) Glands ... .. .. ..	7	..	..	..
(30) Bones and Joints ... .. .. ..	1	..	..	..
(31) Skin ... .. .. ..	1	..	..	..
(32) Other Forms ... .. .. ..	3	..	..	..
Total (Heads 29 to 32) ...	12	..	..	..
<b>NERVOUS SYSTEM:</b>				
(33) Epilepsy ... .. .. ..	..	..	..	6
(34) Chorea ... .. .. ..	2	..	..	8
(35) Other Conditions ... .. .. ..	2	..	..	6
<b>DEFORMITIES:</b>				
(36) Rickets ... .. .. ..	1	..	1	..
(37) Spinal Curvature ... .. .. ..	2	..	..	..
(38) Other Forms ... .. .. ..	8	..	..	..
(39) Other Defects and Diseases (excluding Uncleanness, Defects of Nutrition, and Dental Diseases) ... .. .. ..	185	149	167	91
Total ... .. .. ..	1018	400	1159	127

TABLE II.

**B.—Classification of the Nutrition of Children Inspected during the Year in the Routine Age Groups.**

(See Administrative Memorandum No. 124, dated December 31st, 1934).

AGE GROUPS.	Number of Children Inspected	A. (Excellent)		B. (Normal)		C. (Slightly sub-norm'l)		D. Bad	
		No.	%	No.	%	No.	%	No.	%
Entrants .....	732	56	7·65	613	83·74	57	7·78	6	0·83
Second Age-Group ..	693	51	7·36	518	74·74	116	16·73	8	1·16
Third Age-Group .....	519	84	16·18	353	68·01	78	15·03	4	0·77
Other Routine Inspection.	...	...	...	...	...	...	...	...	...
Totals.....	1944	191	9·82	1484	76·33	251	12·91	18	0·92

TABLE III.

## Return of All Exceptional Children in the Area.

Blind Children.	Total
At Certified Schools for the Blind .....	0
At Public Elementary Schools .....	0
At other Institutions .....	0
At no School or Institution .....	0—0
 Partially Sighted Children.	
At Certified Schools for the Blind .....	0
At Certified Schools for the Partially Sighted .....	3
At Public Elementary Schools .....	3
At other Institutions .....	0
At no School or Institution .....	0—6
 Deaf Children.	
At Certified Schools for the Deaf .....	4
At Public Elementary Schools .....	0
At other Institutions .....	0
At no School or Institution .....	0—4
 Partially Deaf Children.	
At Certified Schools for the Partially Deaf .....	0
At Public Elementary Schools .....	1
At other Institutions .....	0
At no School or Institution .....	0—1
 Mentally Defective Children—Feeble Minded Children.	
At Certified Schools for Mentally Defective Children .....	3
At Public Elementary Schools .....	13
At other Institutions .....	0
At no School or Institution .....	9—25
 Epileptic Children—Children suffering from Severe Epilepsy.	
At Certified Special Schools .....	1
At Public Elementary Schools .....	2
At other Institutions .....	0
At no School or Institution .....	0—3

TABLE III.—Continued.

**Physically Defective Children:****A.—Tuberculous Children.**

	Total
I.—Children suffering from Pulmonary Tuberculosis.	
At Certified Special Schools ... ... ... ... ...	1
At Public Elementary Schools ... ... ... ... ...	3
At other Institutions ... ... ... ... ...	1
At no School or Institution ... ... ... ... ...	0—5
II.—Children suffering from Non-Pulmonary Tuberculosis.	
At Certified Special Schools ... ... ... ... ...	8
At Public Elementary Schools ... ... ... ... ...	13
At other Institutions ... ... ... ... ...	0
At no School or Institution ... ... ... ... ...	0—21

**B.—Delicate Children.**

At Certified Special Schools ... ... ... ... ...	25
At Public Elementary Schools ... ... ... ... ...	17
At other Institutions ... ... ... ... ...	0
At no School or Institution ... ... ... ... ...	0—42

**C.—Crippled Children.**

At Certified Special Schools ... ... ... ... ...	2
At Public Elementary Schools ... ... ... ... ...	17
At other Institutions ... ... ... ... ...	0
At no School or Institution... ... ... ... ...	3—22

**D.—Children with Heart Disease.**

At Certified Special Schools ... ... ... ... ...	4
At Public Elementary Schools ... ... ... ... ...	30
At other Institutions ... ... ... ... ...	0
At no School or Institution ... ... ... ... ...	1—35

**Children Suffering from Multiple Defects:**

## Feeble-minded and Physically Defective.

At no School or Institution ... ... ... ... ...	2
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TABLE IV.

**Return of Defects treated during the year ended  
31st December, 1938.**

**TREATMENT TABLE.**

GROUP I.—MINOR AILMENTS (excluding Uncleanliness, for which see Table vi.).

Disease or Defect.	Number of Defects treated or under treatment during the year.		
	Under Local Education Authority's Scheme	Otherwise	Total.
(1)	(2)	(3)	(4)
Skin—Ringworm, Scalp —			
(i.) X-Ray Treatment, (if none, indicate by dash) .....	—	—	—
(ii.) Other Treatment .....	—	—	—
Ringworm, Body .....	9	—	9
Scabies .....	36	—	36
Impetigo.....	88	—	88
Other Skin Disease .....	394	—	394
Minor Eye Defects—External and other, but excluding cases falling in Group II.....	168	—	168
Minor Ear Defects .....	70	—	70
Miscellaneous—e.g. minor injuries bruises, sores, chilblains. &c. .....	252	—	252
Total .....	1017	—	1017

TABLE IV.—Continued.

**GROUP II.—DEFECTIVE VISION AND SQUINT (excluding Minor Eye  
Defects treated as Minor Ailments—Group I.).**

Defect or Disease.	Number of Defects dealt with.		
	Under the Author- ity's Scheme.	Otherwise	Total.
(1)	(2)	(3)	(4)
Errors of Refraction— (including Squint)	456	—	456
Other Defect or Disease of the Eyes (ex- cluding those re- corded in Group I)	—	—	—
Total .....	456	—	456

Total number of children for whom spectacles were prescribed:

- |                                  |     |
|----------------------------------|-----|
| (a) Under the Authority's Scheme | 349 |
| (b) Otherwise                    | 5   |

Total number of children who obtained or received spectacles:

- |  |     |
|--|-----|
| (a) Under the Authority's Scheme ... ... ... ... ... | 254 |
| (b) Otherwise ... ... ... ... ...                    | 5   |

### GROUP III.—TREATMENT OF DEFECTS OF NOSE AND THROAT.

Number of Defects.													
Received Operative Treatment.													
Under Local Education Authority's Scheme, in Clinic or Hospital.				By Private Practitioner or Hospital apart from the Authority's Scheme.				Total.				Received other forms of Treatment	Total Number Treated.
(i)	(ii)	(iii)	(iv)	(i)	(ii)	(iii)	(iv)	(i)	(ii)	(iii)	(iv)		
—	—	21	—	3	—	71	—	3	—	92	—	64	159

(i) Tonsils only. (ii) Adenoids only. (iii) Tonsils and Adenoids.  
 (iv) Other Defects of the Nose and Throat.

TABLE IV.—Continued.

#### GROUP IV.—ORTHOPÆDIC AND POSTURAL DEFECTS.

	Under the Authority's Scheme.			Otherwise.			
	Residential Treatment with Education (i)	Residential Treatment without Education (ii)	Non-residential Treatment at an Orthopaedic Clinic (iii)	Residential Treatment with Education (i)	Residential Treatment without Education (ii)	Non-residential Treatment at an Orthopaedic Clinic (iii)	Total Number Treated
Number of Children Treated ...	3	4	9	...	...	...	15

NOTE.—In some instances a child is recorded in more than one category in this table, hence the total is not the same as the sum of the figures in the separate categories.

TABLE V.—DENTAL INSPECTION AND TREATMENT.

- (1) Number of children who were:—

- (a) Inspected by the Dentist:—

Aged:-

Routine age groups	{	5.....181	}	.
		6.....405		
		7.....499		
		8.....551		
		9.....553		
		10.....563		
		11.....460		
		12.....557		
		13.....507		
		14.....70		
				Total ...4346

- (b) Specials ... ... ... ... ... ... ... ... ... ... ... ... ... ... ... ... 1303

- (e) Total (Routine and Specials) ... ... ... ... ... ... 5649

- (2) Found to require treatment ... ... ... ... ... ... ... 4941

- (3) Actually treated ..... 3025

- (4) Attendances made by children for treatment ... . . . 4105

- (5) Half-days devoted to :—

Inspection ... ... ... ... ... ... 37

Treatment ... ... ... ... ... ... 449 Total ... 486

TABLE V.—Continued.

(6) Fillings: Permanent teeth ... ... ...	1264		
Temporary teeth ... ... ...	96	Total ...	1360
(7) Extractions: Permanent teeth ... ...	783		
Temporary teeth ... ...	3525	Total ...	4308
(8) Administration of general anaesthetics for extractions ...	140		
(9) Other operations: Permanent teeth ...	354		
Temporary teeth ...	176	Total ...	530

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TABLE VI.—UNCLEANLINESS AND VERMINOUS CONDITIONS.

(i) Average number of visits per school made during the year by the School Nurses ... ... ... ...	4
(ii) Total number of examinations of children in the Schools by School Nurses ... ... ... ...	14,579
(iii) Number of individual children found unclean ... ...	15
(iv) Number of children cleansed under Section 87 (2) and (3) of the Education Act, 1921 ... ... ...	6
(v) Number of cases in which legal proceedings were taken:	
(a) Under the Education Act, 1921 ... ...	—
(b) Under the School Attendance By-laws ... ...	—